MotionX®

24/7

Sleeptracker®

Medical grade 24/7 Sleep Cycle Alarm, Snore and Apnea Recorder,
Resting Heart Rate Monitor, Weight Loss and Activity Tracker

User Manual

Fullpower Technologies, Inc., makers of MotionX®

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Website: http://24-7.motionx.com

1. Overview

MotionX-24/7 helps you move and improve your sleep as well as monitor your health with tools including an activity monitor, sleep recorder, heart rate monitor, and weight tracker.

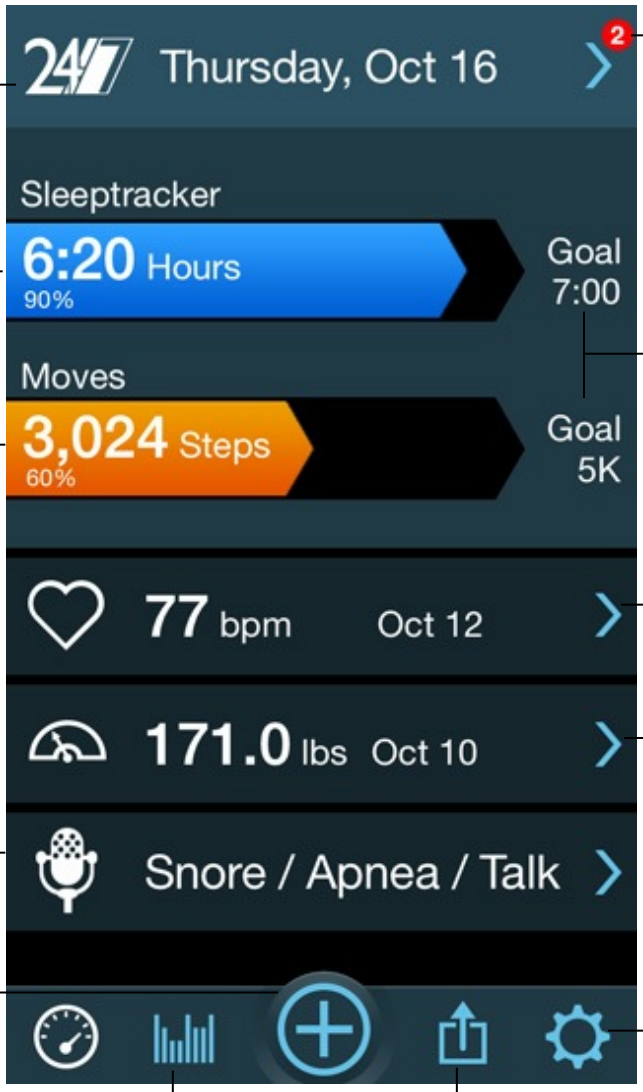
Personalize MotionX-24/7

After launching 24/7, you will be prompted to answer a few questions about yourself such as your height, weight, age and gender to help optimize accuracy for distance and calorie computations.

24/7 is fully integrated with Apple's Health app in iOS 8 so you can share data with other Health app-enabled applications (requires iOS 8.0.2 or later).

Home Screen

The Home screen provides your stats at a glance. Use the large "plus" button at the bottom to record your sleep, steps, timed activities, heart rate, and weight.



Touch to view your sleep and move score, today's almanac and the 24/7 Coach for personalized tips

Indicates you have new personalized sleep and move tips from the 24/7 Coach

Sleeptracker: View your latest sleep recording details and history

Goal: Tap to update your goals

Steps: View your daily steps - current day's progress and history

Heart Rate: Use the camera to measure and track your heart rate at the same time each day to help spot trends (e.g. each day when you wake)

Weight Tracker: Log your weight and view progress towards your weight goal

View & play sound clips from sleep recordings

Record or Enter: Sleep, steps, timed activities, heart rate, and weight

Access all application settings

Log: View all recorded and entered data

Share sleep, steps, walks; export .CSV file

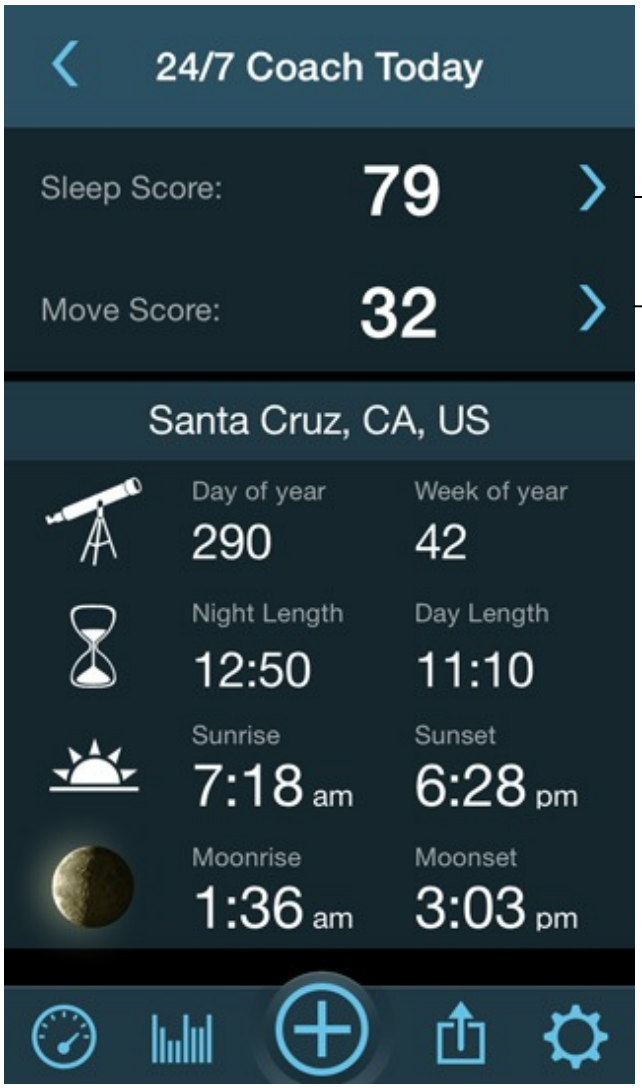
1. Overview (continued)

Scoring, Coaching tips, Almanac

The Sleeptracker score is a value from 1 to 100 based on a number of factors. Your sleep efficiency, total sleep duration compared to the number of recommended hours of sleep, the ratio of deep to light sleep and the number of times you awoke during the night all contribute to your score. Daily sleep tips are customized for you based on your sleep recording and sleep score.

The Move score is a value from 1 to 100 and is calculated using several data points. The total number of steps taken, the number of aerobic steps taken and the number of hours in the day you were moving all factor into the score. Daily move tips are provided based on your previous day's move score.

The time of year influences how much sleep your body needs. Reference the almanac to see today's night and day length, sunrise/set and moonrise/set.



Click for daily personalized coaching tips from the 24/7 Coach. Advice to help you sleep better and move more.

2. Sleeptracker

Record your sleep with patented Sleeptracker® technology to visualize your sleep patterns and to be woken up at the optimal time by the Smart Sleep Cycle Alarm. Choose between placing the iPhone on your bed next to your pillow, or wearing your iPhone in a wristband/armband. Use the screen lock button to conserve power while sleeping.

24/7 can monitor your sleep with your iPhone placed in your bed. 24/7 will work with any mattress type (including Tempur-Pedic®) if the phone is positioned properly: go to Settings > Optimize iPhone Position. Turn off the screen to conserve power while recording your sleep; activate airplane mode to turn off cellular and Wifi signals.

For optimal accuracy, wear your iPhone on a wristband or armband while you record your sleep.

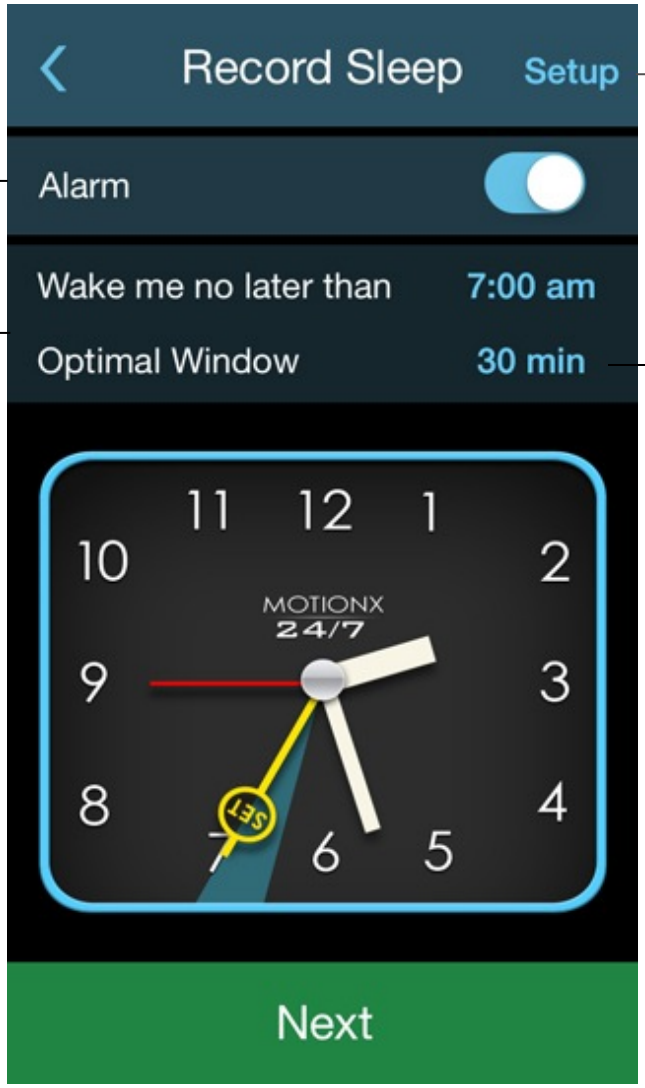
2. Sleeptracker (continued)

Alarm Clock

Start a sleep recording to begin monitoring your sleep (select the "plus" button from the Home screen). When you wake up in the morning, press and hold Stop Sleep to end the recording. Use the **Sleep Cycle Alarm** to wake up at the optimal time in your sleep cycle. You must be recording your sleep to activate the alarm. Choose the alarm sound you would like to be awoken with and other settings.

Alarm: Toggle to turn the alarm on/off (use the off setting to record your sleep without using the Sleep Cycle Alarm)

In the specified time window preceding your set time, the Sleep Cycle Alarm will pick the optimal time to wake you so you feel refreshed. Touch the Set marker to change the alarm time.



Alarm Setup: Update alarm day, time, window, sounds, and volume. Optionally add multiple alarms; for example one for weekdays and one for weekends.

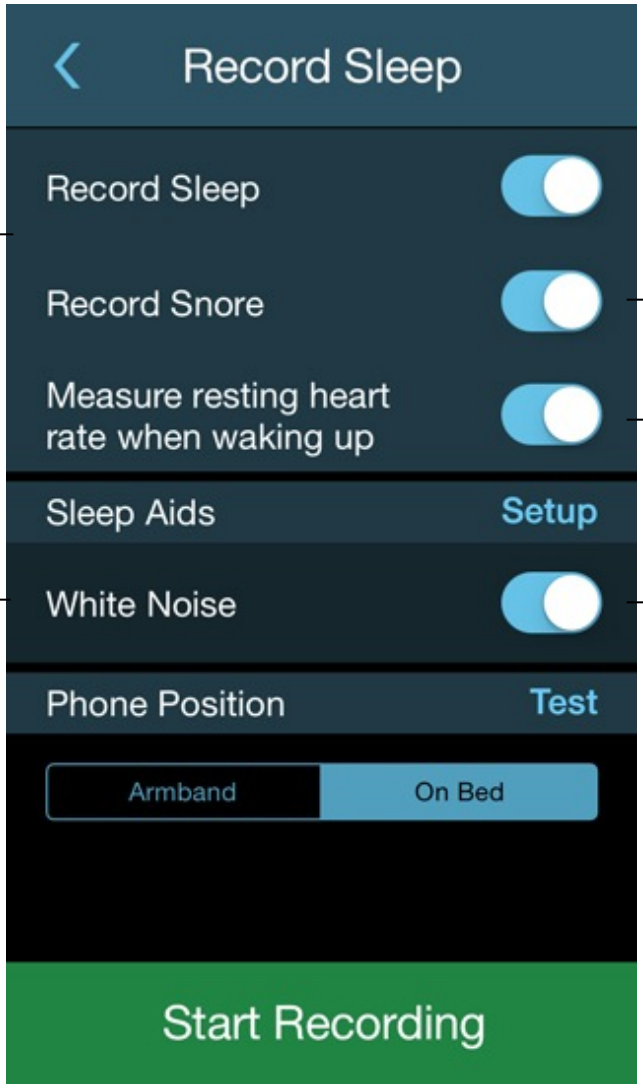
Window: Select the window duration preceding your set alarm time within which you'd like to be woken up

2. Sleeptracker (continued)

Sleeptracker Setup

Choose to record just your sleep, just your snoring, or both

Position your phone to ensure your device is positioned properly for recording sleep[1]



Record Snore: Use the iPhone's microphone to record snoring or apnea sounds while you sleep

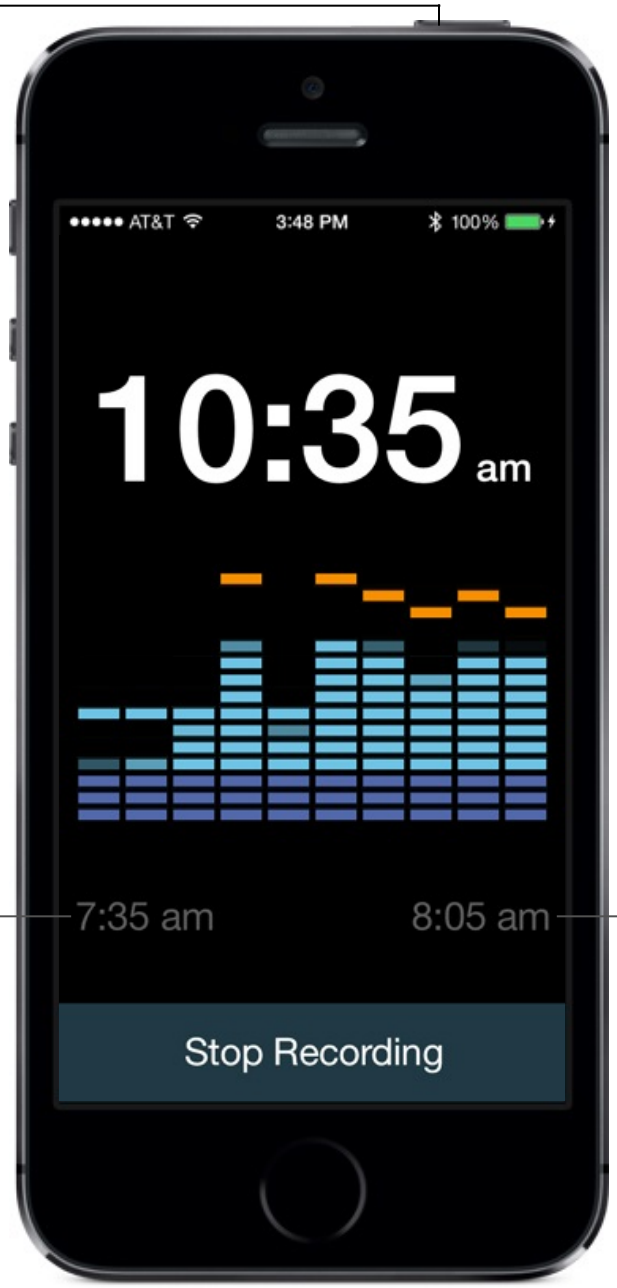
Receive a reminder to measure your heart rate using your iPhone when you wake up

White Noise: Optionally fall asleep to white noise or a track from your iPod. Noise gently fades away after you fall asleep.

[1] The first few times you record your sleep, use the Phone Position test to ensure your device is positioned properly for recording sleep with your iPhone on the mattress. Proper placement will increase accuracy. Access the placement test any time from Menu > Settings > Optimize iPhone Position.

2. Sleeptracker (continued)

To save power, use the screen lock button on top of your iPhone to turn off the display, or place your iPhone face-down on the bed to activate the proximity sensor (iPhone only)



Tip: 24/7 works with your iPhone in airplane mode to avoid having phone calls and text messages disrupt your sleep

Earliest sleep cycle alarm wakeup time, set by your wake-up window[1]

Latest sleep cycle alarm wakeup time

[1] Alarm volume is independent of your iPhone ringer volume, and will sound even if your iPhone ringer is set to vibrate.

3. Sleeptracker Log

View detailed sleep graphs for individual recordings, plus 7-day and 30-day trend charts and statistics.

Sleeptracker Graph, Statistics, and Score

View your Sleeptracker score, bed time, rise time, sleep efficiency, actual sleep time, and total time spent in bed.

- orange = awake
- light blue = light sleep
- dark blue = deep sleep

Total sleep time

Edit: Set a new rise time or delete this recording

Score: A value between 1 and 100[1]

Rotate your iPhone to landscape to expand the view to full-screen.

Then swipe right to left over the graph to see a pie chart displaying percent of time spent awake, in light sleep and in deep sleep.

Select a play button to hear audio recorded during your sleep (e.g. snoring or other abstract noises)

Sleep Efficiency is calculated using the formula:

$$\frac{\text{actual sleep}}{\text{time in bed}} \times 100\%$$

Use the arrow buttons or swipe the bottom part of the page to see more of your sleep recording history

Touch to toggle between 1-day, 7-day and 30-day sleep graph summaries

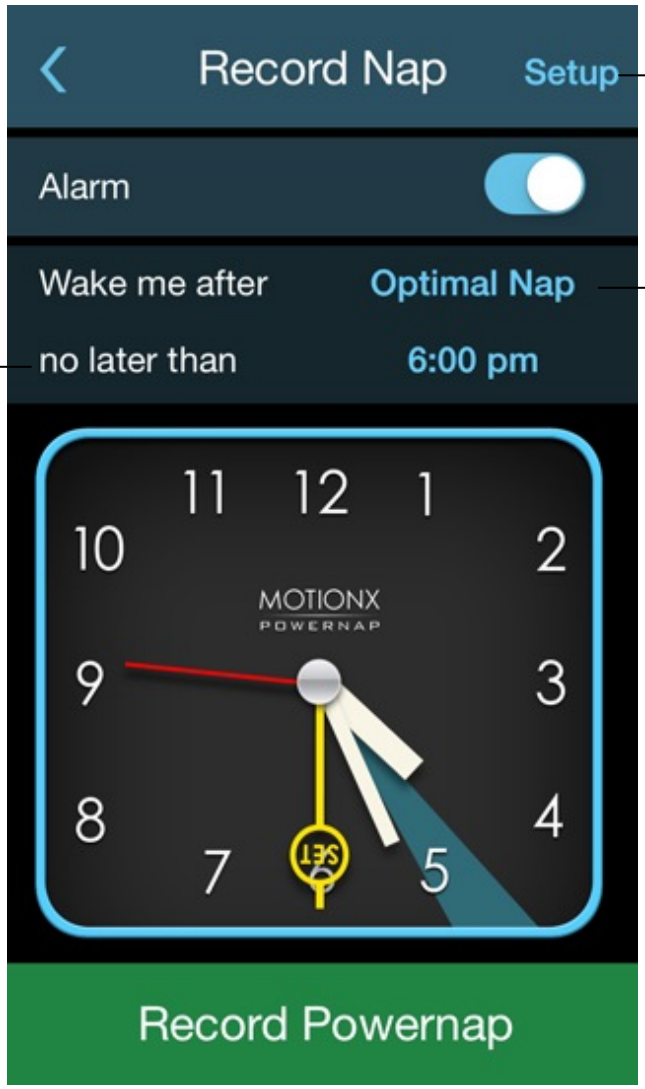
[1] Your Sleeptracker score is a value from 1 to 100 based on a number of factors. Your sleep efficiency, total sleep duration compared to the number of recommended hours of sleep, the ratio of deep to light sleep and the number of times you awoke during the night all contribute to your score.

4. Powernap

Use a powernap to recharge your battery mid-day. A 25 minute powernap will leave you feeling more refreshed than the short-term boost from caffeine.

Choose a powernap duration between 15-180 minutes, or let 24/7 set the optimal time for you. The timer will start once 24/7 has determined you are asleep. For example, if you set a duration of 25 minutes and it takes you 10 minutes to fall asleep, the alarm will sound after 35 minutes.

Set the latest time you want to wake up from your powernap. This time overrides the nap time window if necessary

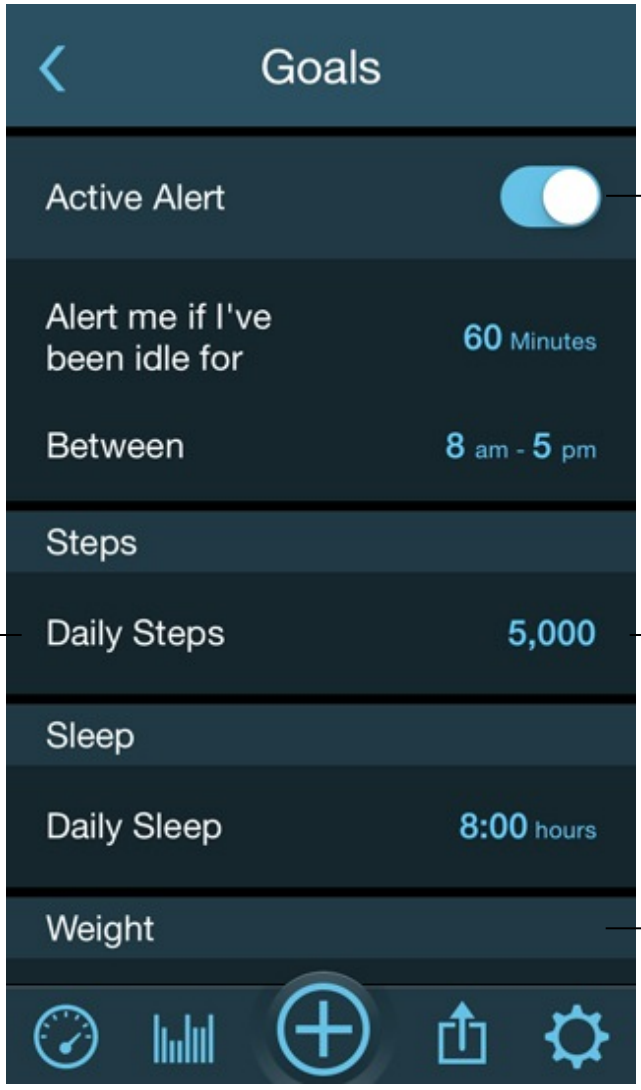


Alarm Setup: Turn optimal duration setting on/off, select alarm volume, sound, iPod song, and vibration settings

The default optimal powernap time is set to 26.5 min; as 24/7 learns more about your sleep habits the app will automatically optimize this duration for you

5. Goals

Step and sleep goals keep you motivated. Configure your personal goals and adapt them over time. Set the Active Alert to help you get moving throughout the day.



Active Alert: Receive a notification when you've been idle for too long. Set the idle time and between what hours of the day you'd like to be alerted.

Notifications must be enabled from iPhone Settings for this feature.

For all devices except iPhone 5S, 6, or 6 Plus: Background Step Count must be turned ON.

Daily Sleep Goal: Set a sleep goal between five and ten hours. Sleep requirements vary from person to person, so use your sleep recordings as a guide to select the optimal sleep goal for you.

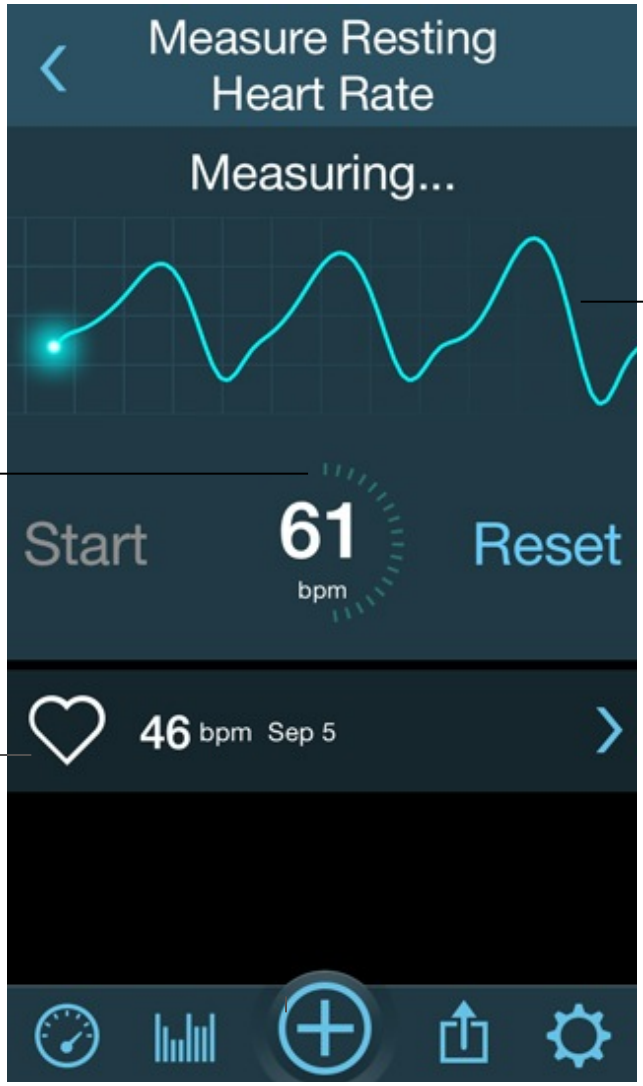
Daily Steps Goal: Adjust up or down to match your fitness level

Weight Goal: Set a weight goal; choose to lose, maintain, or gain weight; view your progress by selecting Weight from the 24/7 Home screen

6. Heart Rate

Your resting heart rate is a great measure your general well-being. Measure your resting heart rate at the same time each day to spot upward or downward trends.

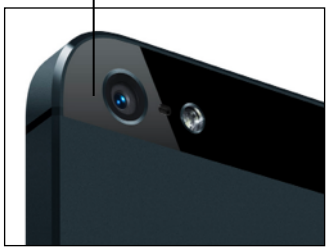
Place your finger so it covers both the camera lens (rear camera for the iPhone) and the flash and press the Start button. Press gently and move your finger around until you see a waveform and hear a beeping noise to indicate the sensor is collecting data. For best results, take measurements in a well lit room or outdoors and ensure your device is running the latest iOS version.



The waveform approximates your heart beat

Continue holding your finger over the lens until the progress circle is complete

Lightly place your finger over the camera lens and flash so both are covered



Access your heart rate data (historical log and graphical summary; 7-day average, high and low values)

7. Steps

View your daily steps or toggle between 1-day, 7-day or 30-day summaries. Review your Moves score, total steps, aerobic steps, calories burned, active time, idle time and daily goal percentage. Access from the 24/7 Home Page by selecting Steps. Turn ON Background Step Count from Settings > Daily Steps to track daily steps.[1]

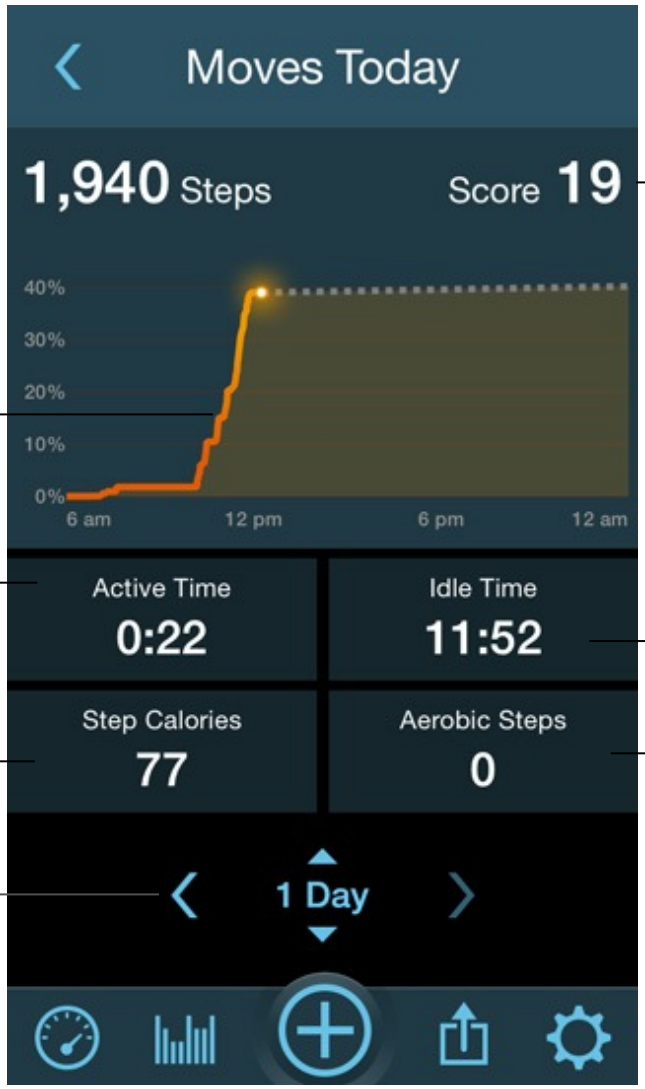
Touch and hold anywhere over the graph, then slide your finger left or right to see the number of steps accumulated at any point in the day

Rotate your iPhone to landscape to expand full-screen

Active Time: Total time spent active today[3]

Calories is based on factors such as height, weight, age, gender, step count, distance, and cadence; value optionally includes (BMR)[4]

Swipe the bottom part of the page to see more daily steps history, or use the arrow buttons; touch '1 day' button to toggle between 1-day, 7-day and 30-day views.



Score: A value between 1 and 100[2]

Idle time: Total time spent inactive today[3]

Aerobic Steps: Steps taken during and after 4 consecutive minutes of walking and/or jogging.

[1] The iPhone 5S, 6, and 6 Plus monitor your background steps automatically.

[2] The Move score is a value from 1 to 100 and is calculated using several data points. The total number of steps taken, the number of aerobic steps taken and the number of hours in the day you were moving all factor into your score.

[3] Active time is defined by periods of time during which several steps are taken. Activities such as yoga and weightlifting typically will be counted as idle time.

[4] Even while sedentary or sleeping, your body burns calories. Calories burned may be displayed as a combination of your BMR (basal metabolic rate) and your activity level, configurable in Settings > General.

8. Record Activity

Record walks, jogs or runs. This is different from Daily Steps which 24/7 automatically monitors all-day if enabled (see Section 7 on Daily Steps). Recorded activities also count towards your daily steps total.

Activity Recorder Stopwatch

Coach: Access and update the voice coach settings at any time during your recording

Calories: Based on the number of steps, cadence and personal information such as height, weight, age and gender

Avg. Cadence: Average number of steps taken per minute

Swipe the bottom half of the display right-to-left to see a bar chart showing steps vs. time

8. Record Activity (continued)

Recorded Activity Summary

Touch to edit the name of the recording

Slide the graph side-to-side to see the entire timeline.

Rotate your iPhone to landscape to expand the view to full-screen.

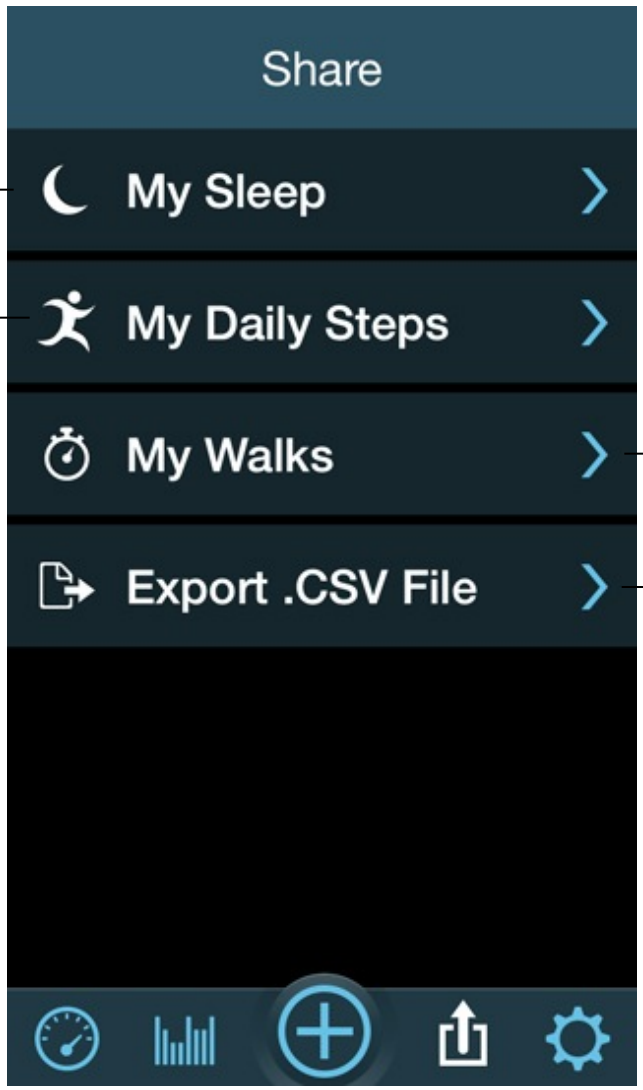
9. Share

Share your sleep recordings, daily steps and recorded walks with friends and family to show your progress, to help motivate them to sleep better and to be more active.

Share your sleep and/or activity from today or yesterday, or share a summary from the last seven days or the last 30 days. Share via email, Twitter, post to your Facebook Timeline or export a CSV file containing all sleep and daily steps data.

My Sleep: Share your sleep recording from today or yesterday, or 7-day or 30-day average and trend chart

My Daily Steps: Share activity from today or yesterday, or select a summary with a 7-day or 30-day average and trend chart



My Walks: Share a recorded walk from your Walk Log

Export all sleep and daily steps data in CSV (comma-separated value) format

[1] Sharing via CSV export is useful to maintain a history of your sleep and activity locally on your computer, so if anything happens to your iPhone, or if you upgrade to a new device, your data is preserved.

10. Settings

Configure 24/7 application preferences from the Settings page.

Daily Steps

On the iPhone 5S, 6, and 6 Plus, MotionX-24/7 uses Apple's motion co-processor without additional battery consumption. For all other device types:

24/7 Background Step Count OFF: The 24/7 Background Step Counter is off.

24/7 Background Step Count ON: Monitor your daily steps while the app is running or while the app is in the background.

Alarm Snooze

The snooze time set here applies globally to all of your alarms. Turn ShakeShake® to snooze (shake the phone twice) on/off.

Optimize iPhone Position

Use the Optimize iPhone Position test to ensure your device is positioned properly for recording sleep with your device on the mattress. Proper placement will increase accuracy.

NOTE: Placing your device on a solid surface such as the floor or a table while recording sleep causes 24/7 to become highly sensitive to very small movements. This level of sensitivity is required for users sleeping on a very firm or motion-absorbing mattress (such as Tempur-Pedic®). However, with the iPhone on the floor or table, noise from the accelerometer sensor can be registered as sleep cycles resulting in a random sleep graph and random sleep statistics.

Ensure that you place your iPhone according to the instructions, either in bed or in an armband, so that MotionX can accurately monitor your sleep and wake you up at the optimal time.

10. Settings (continued)

General Settings

Units: Select preferred units for distance, height, and weight.

Sounds: Turn button sounds on or off. This only affects button sounds and not other sounds (e.g. alarm, voice coach) made by the app.

BMR Calories: Turn on basal metabolic rate (BMR) calories to include the calories your body burns at rest in the Calories field on the Daily Steps page. Turn this setting off if you only want to see calories you've burned from the steps you take.

Share sleep logs anonymously: Help us improve the accuracy of *24/7* by sharing your sleep logs anonymously.

Recording Style: Set the default sleep recording style to Sleep & Snore, Sleep Only or Snore Only.

Resting heart rate: Turn this feature on to receive a prompt to measure your heart rate when you wake up.

Personal Information

Enter your gender, height, weight, and age for greater accuracy in determining the distance traveled and calories burned when you walk, jog or run.

Voice Coach

Activate the voice coach to hear audible feedback while you are recording timed walks. Select to hear progress updates for steps, time, calories, and/or distance. The voice coach trigger is based on either number of steps taken or elapsed time.

Reset

Reset Calibration: Reset all calibration history.

Restore Help Pages: Restore the in-app help pages if you chose to not show them again (these pages are shown by default the first time you use the app).

Delete Snore Recordings: Delete your entire log of snore recordings.

Restore to Factory Settings: Delete all data and restore to factory settings.

11. Appendix: Notes on the iPad & iPod touch

If you are using 24/7 with the iPad or iPod touch, please be aware of the following considerations:

- iPads and iPod touches do not have a proximity sensor, so placing your device face-down on the mattress during sleep recordings will not turn the display off.
- iPads and iPod touches do not contain a vibrate motor, so the Get Active Alerts will be issued via audible notifications only.
- The iPod touch does not support heart rate monitoring.

12. FAQ

Q: I have an iPhone 5S or later but the 24/7 App is not being populated with motion activity data from the Apple motion co-processor — why is this?

Ensure you have enabled motion activity access for MotionX-24/7 from iPhone Settings > Privacy > Motion Activity.

Q: Has a clinical trial been performed comparing the non-invasive Fullpower Sleeptracker technology to a typical polysomnogram?

Yes, a clinical trial comparing Sleeptracker technology (the sleep monitoring technology in 24/7) to a typical polysomnogram can be viewed here.

Q: After upgrading 24/7 from a prior version, my alarm settings seem strange. How can I ensure my alarm will go off at the correct time?

If you see issues with your alarms, the best method is to delete all existing alarms and create new ones. To do this, from the Record Sleep page, select the Alarm Setup button to see a list of your current alarms. Delete any existing alarms by pressing the Edit button, then touch the "Minus" icon followed by the Delete button. Now add a new alarm using the "Plus" button in the upper right.

Q: How do I change my alarm settings such as sound, etc?

To create or edit an alarm, go to the Record Sleep/Snore page, select the Alarm Setup button and either select + to add an alarm or select Edit, then choose an existing alarm. Configure the alarm details such as time, window, days of the week to repeat, alarm volume, alarm sound and vibration duration. The Global Alarm Snooze duration can be accessed from the alarm details page or from Settings>Alarm Snooze.

Q: Does MotionX-24/7 work on a Tempur-Pedic® mattress?

Yes, 24/7 works on any mattress when your iPhone or iPod touch is positioned correctly. Use the audible in-app placement test to help. Go to Menu > Settings > Optimize iPhone Position and follow the instructions.

Q: How do I know where to put my iPhone in bed for best accuracy?

To help optimize the placement of your iPhone in bed, use the audible in-app placement test. Go to Menu > Settings > Optimize iPhone Position and follow the instructions on the page. Ideal placement depends on your mattress and pillow type.

Q: Does MotionX-24/7 work when sharing a bed with your spouse?

Yes, 24/7 works well even with two people in bed. Place your iPhone on the outside edge of your bed. Use the in-app audible placement test to check the sensitivity level and to ensure your iPhone is in the optimal position.

Q: My iPhone was on the floor or table while recording sleep, so why do I see sleep data?

Placing your iPhone on a solid surface such as the floor or a table while recording sleep causes MotionX to become highly sensitive to very small movements. This level of sensitivity is required for users sleeping on a very firm or motion-absorbing mattress (such as Tempur-Pedic®).

However, with the iPhone on the floor or table, noise from the accelerometer sensor can be registered as sleep cycles resulting in a random sleep graph and random sleep statistics.

Ensure that you place your iPhone according to the instructions, either in bed or in an armband, so that 24/7 can accurately monitor your sleep and wake you up at the optimal time.

Q: Why doesn't the alarm fire when my iPhone is plugged into a charger?

The Smart Sleep Cycle Alarm will fire when your iPhone or iPod touch is connected to an Apple branded charger.

Some 3rd party USB iPhone cables prevent the iPhone from playing sounds. If you charge your iPhone while recording sleep, please ensure you are using the Apple branded USB cable that came with your iPhone or iPod touch. If you use a 3rd party cable, check that your iPhone can still play sounds when it is plugged into power with that cable.

Q: How can I make the App count my daily steps in the background?

Turn On the 24/7 Step Count button in the main Menu of the App to enable daily step counting in the background.

Your iPhone's location services must also be turned on in order for 24/7 to access the accelerometer sensor when backgrounded or screen-locked. Find location services in iPhone Settings > Privacy > Location Services.

If you reboot your iPhone (power it off and back on), re-launch 24/7 to continue monitoring your steps in the background (all Apps are shut down when you reboot your iPhone).

Q: How do I position my iPhone in bed for best accuracy?

In the App, go to Menu > Settings > Optimize iPhone Position. Ideal placement depends on your mattress and this will help you optimize. Follow the on screen directions.

Q: Can I count daily steps with 24/7 in the background?

To turn on daily step counting in the background:

In the App, go to Menu > Settings > Daily Steps Battery Management and select the 'Custom Power Consumption' option. Also adjust the inactivity shutdown slider: the higher the number, the longer the App will monitor your Steps even when you are inactive for long periods. iOS5 or later is required to select this option.

Also location services must be enabled for MotionX-24/7 in iPhone Settings > Privacy > Location Services. This allows the App to access the accelerometer sensor when the App is backgrounded.

If you reboot your iPhone (power it off and back on), re-launch the 24/7 App to continue monitoring your steps.

Q: How are calories calculated in MotionX-24/7?

Even when you are sedentary or sleeping, your body burns calories; this is known as BMR (basal metabolic rate) calories. The default setting for calories burned is a combination of your BMR and your activity level. Your height, weight, age, and gender influence these values. In Menu > Settings > General Settings you may specify whether to include BMR calories or focus just on calories based on your activity.

Q: What are aerobic steps?

Steps are considered aerobic steps when you walk, jog, or run at a cadence of at least 60 steps per minute for 5 minutes or longer.

Q: How do I review my activity for specific times throughout the day?

The graph on the Daily Steps page provides an overview of your daily activity. To view your progress at a specific time, press and hold on the graph and move your finger left to right. Your steps will display at the top of the screen for specific times throughout the day.

Q: Does the iPhone need to be plugged in during a sleep recording?

In general a fully charged iPhone should have plenty of battery capacity to run the sensors used to monitor you sleep throughout the night. For older iPhones with less battery capacity, you can opt to plug in your iPhone and place it on your mattress. To conserve battery, place the iPhone screen-down so the proximity sensor can turn the screen off to reduce battery consumption.

Q: I'm having trouble hearing the voice coaching. Do you have any tips?

From the Voice Coach settings page (Menu > Settings > Voice Coach), scroll to the bottom and turn up the Master Volume and the Relative Voice Volume. The Relative Voice Volume adjusts the volume of the voice updates relative to your iPod music.

Q: Why doesn't the proximity sensor work to turn off the screen when using the 'Use Armband' sleep option?

Due to the variety of armband styles, we've found the proximity sensor may not properly turn off the screen or could result in flickering. The proximity sensor is active when recording sleep with the 'Put iPhone in Bed' option.

Q: Why are my "Get Active" Alerts not working?

Check the time settings on your Get Active alerts. You can find these in Menu > Goals. Also, 24/7 Step Count must be turned ON in the main Menu for MotionX-24/7 to monitor your daily steps. For MotionX to monitor your steps in the background, you must be using iOS 5 or later with Location Services enabled in the iPhone's settings.

Q: On the sleep graph, how much time is represented by each bar on the graph?

Each bar represents 5 minutes of time.

Q: "What does the Sleep Score represent?"

A. The sleep score is a value from 1 to 100 based on a number of factors. Your sleep efficiency, total sleep duration compared to the number of recommended hours of sleep, the ratio of deep to light sleep and the number of times you awoke during the night all contribute to your score. Your daily sleep tips are customized for you based on your sleep recording and sleep score.

Q. "What does the Move Score represent?"

A. The move score is a value from 1 to 100 and is calculated using several data points. The total number of steps taken, the number of aerobic steps taken and the number of hours in the day you were moving all factor into the score. Your daily move tips are based on your previous day's move score.